

Fair Radio Sales Co.

1016 E. EUREKA ST. • P.O. BOX 1105 • LIMA, OHIO 45802

BULK RATE
U.S. POSTAGE
PAID
Lima, OH 45802
Permit No. 114

ADDRESS CORRECTION REQUESTED

FALL 1993 CATALOG SUPPLEMENT

PHONES: 419/227-6573 or 223-2196
FAX MACHINE: 419/227-1313
MON.-FRI. 9-5:30, SAT. 9-1

**PRICES ARE F.O.B. LIMA, OH
ALLOW FOR SHIPPING CHARGES!**

ITEMS OVFR 70 LBS. SHIPPED
MOTOR FREIGHT COLLECT

INCLUDE PAYMENT IN FULL
USE YOUR VISA OR MASTERCARD

BALLENTINE 9632 DVM



BALLENTINE 9632M (AN/USM-451) DIGITAL MULTIMETER, portable unit with 3-1/2 digit LCD display operates from two D-cell batteries. AC-DC VOLTAGE ranges 0.2-2-20-200-1000 V with overvoltage protect. AC-DC CURRENT ranges 0.2-2-20-200-2000 MA-10 AMPS. RESISTANCE ranges 200-2K-20K-200K-2000K-20M ohms. DIODE TEST on 2K and 20M ohm ranges. Extended freq-response 20 Hz - 25 KHz. Input impedance 10 megohms all ranges. LCD display may have blemish; "reparable" units tested to "zero" all ranges only. 2.8x8.2x9, 4#. USED-REPARABLE w/test leads & bag, \$39.50 GOV'T-RECOND w/"used" leads & bag, \$79.50 #9632-BAD, non-working "parts" meter, \$15.00 MANUAL for USM-451, partial repro, \$8.50

COAXIAL RELAYS



SPDT COAX RELAYS, response to 2000 MHz upto 100 watts; NEW: + + + + +

AMPHENOL #316-10744, 48 VDC coil; three N connections, 2.8x2.5x2.3, 1#, \$14.95
AMPHENOL #318-10382-11, 20 VDC coil; three BNC connections, 2x1.5x1.2, \$16.00
DOW-KEY #54-104, 110 VAC coil; three BNC connections, 2x1.5x1.2, \$17.95
AMPHENOL #300-11266, response to 12 GHz, 30 watts 27.5 VDC coil. Input push-on SMA, output SMA & mini-BNC conn; 3.1x1.5x1.4, \$16.
DYNATECH #D3-413E3, response to 18 GHz; 28 VDC coil. Solder terminals and three female SMA connections; 1.3x0.5x2.3. \$19.95

VELVET VERNIER

MECHANISM ONLY for famous Velvet Vernier dial which functions as speed reduction drive and allows precise tuning of radio and electronic equip. Tune shaft 1/4"Lx3/16" dia; backside has coupling for 1/4" dia shaft; o/a 2.5" dia, 1 lb. Knob and dial not available. #VD-MECH, UNUSED, \$2.95 ea; 2 for \$5.

HE-NE LASER



HELIUM NEON LASER with internal power supply. Operates from 10-14 VDC 900 MA input; output 1250 VDC 4 MA Beam wavelength 633 mm. In 6.4x2.3x1.3 plastic case, 2#. #LZR-993, used-checked, \$45.00

PRC-74B HF TRANSCEIVER



RT-794B/PRC-74 HF TRANSCEIVER, solid-state unit operates over 2 to 17.999 MHz USB-voice-CW in 1 KHz steps; output 15 watts PEP. Usable with AS-1887A/PRC-74 whip antenna (not available) or MK-911/PRC-74 long-wire antenna listed below. Controls for MC/100 KC/10 KC/1 KC frequency select, ANT Tune/Load, Peak Noise, RF Gain, Clarify, & ANT tune indicator meter. Requires +10.5 to +17 VDC 14 Amp-Hr input from battery. Battery box not supplied. 3.8x12x15.5, 18 lbs sh. Used, \$250.00 + + + + +
M-80 MIC, used \$10. H-251 HEADSET, used \$12 MK-911/PRC-74 LONG-WIRE ANTENNA SET, two 234 ft antenna wire & reels, two 100 ft support cords with weights and dipole fixture w/terminals and wire lead. 10# sh. Used, \$32.50
KY-562 TELEGRAPH KEY w/U229 plug, used, \$25. MANUAL or BATTERY BOX for PRC-74B *WRITE* + + + + +
PP-4514/PRC-74 POWER SUPPLY/BATTERY CHARGER, operates RT-794 from 110/220 VAC power or 21 to 31 VDC in vehicular installation. RT sets on top and plugs into supply. Also will charge a PRC-74 ni-cad battery pack. Has 0-5 ADC/0-20 VDC meter with Function selector & Charging Current control 0-5 amps. Includes five cables for various functions. 10.5x11.5x18, 68 lbs sh. GOV'T-RECONDITIONED, \$125.00

GRA-71 CODE BURST



AN/GRA-71 CODER-BURST TRANSMISSION GROUP, electromechanical Morse code generator allows user to record messages on magnetic tape at upto 300 word per minute. Also has keyer to convert recorded code to electrical pulse for keying transmitters such as GRC-109, PRC-64, and PRC-74A-B-C. Includes two M-9 tape magazines MX-4495 -4496 tape coders, and KY-468 keyer. Requires 6.3 VAC. 9x.5x5.3, 13#. Used, \$145.

MIL-LANTERN



MILITARY LANTERN-FLASHLIGHT has 2.3" dia lens head which pivots from right angle to in-line position. Requires four D-cell batteries for longer life; with belt clip. O.D. green color; metal construction. 8.5x3x1.3, 2 lbs sh. #FL-21067, NEW, \$6.95

60 HZ LINE FREQ-METERS



JBT 7-REED 57-63 Cycles Per Second, 100-130 VAC; 3.5" dia. #31-FHXX-7, NEW, \$39.50
JBT DUAL 5-REED 48-52 and 58-62 Cycles Per Second; 3.5" dia. #30-FHXX, NEW, \$34.50
ARGA 55-65 HERTZ, 115 V; 3.5" sq pointer-type; GE FS-100 ua movement with frequency-reading circuit. Arga #4-016, NEW, \$32.50

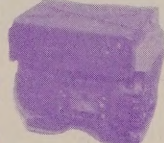
ELECTRO-VOICE MICS

ELECTRO-VOICE 607L DESK MIC, Lo-Z differential dynamic mic has noise-canceling feature which rejects background noise; response 300-3800 Hz. Mounted on heavy-duty cast stand; lockable push-to-talk switch. Coil cord has Cannon DM9702-7P 7-pin plug; gray. 11"H; 4#. NEW, \$35.00

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ELECTRO-VOICE 600E DYNAMIC MOBILE MIC, output level -55 DB; response 100-7000 Hz. Has push-to-talk switch and coil cord with Cannon XLR-4 4-pin plug. Gray color with hang-up bracket; 3 lbs sh. NEW, \$14.95

750 W INVERTER

ROTARY INVERTER with output 115 VAC 400 Hz 1 phase 750 VA from 28 VDC 60 amp input; Le-land or = mfg. 12x9.5x7, 42 lbs sh. GOV'T-RECOND., \$69.50



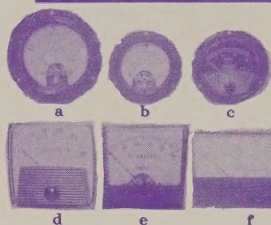
J-38 KEY

J-38 CW KEY with shorting bar and white brass hardware; on 4.2"x3" black phenolic base; U.S. mfg, 1 #. UNUSED, \$30.00

FT-237

FT-237 SHOCKMOUNT for World War II and Korean War era radio sets SCR-508-608. Holds two BC-603/683 receivers & one BC-604/684 transmitters. Includes common terminal block, CO-278 8 ft cable, and hardware. 5.5x33.6x13, 51 lbs sh. UNUSED, \$95.00

VOLTMETERS & AMMETERS



NEW PANEL METERS !
Wt: 1 lb sh/meter.
+ + + + +
50-300 VAC, 3.5" dia (a); \$8.95
- - - - -
0-30 VDC, 2.5" dia black (b); \$7.95
- - - - -
0-100 VDC 2.5" sq GE-Yokoga (d) \$9.

0-50 UA DC, 3.5" dia A&M 367 (a); \$8.95
FS=50 UA DC, 0-1 scale, 3.5" dia; \$7.95
FS=1-0-1 MA DC, 100-0-100 sc, 2.5" dia \$5.95
0-10 MA DC, 3.5" square, Simpson (f) \$9.95
50-0-50 MA DC, 3.5" dia Phaotron; \$7.95
10-0-10 AMPS DC, 2.5" dia Phaotron; \$9.95
0-15 AMPS DC, 3x2.5 Modutec (e); \$12.00
0-15 AMPS DC, 2.5" dia A&M 265; \$10.00
0-25 AMPS DC, 3.5" dia Simpson; \$12.00

DC AMMETERS, FS=50 MV shunts required:
0-75 AMPS DC, 4.5x4.3 Weston 1941, \$9.95
0-100 AMPS DC, 2.5" sq Simpson (f), \$9.95
0-150 AMPS DC, 3.5" rd Simpson (a), \$7.95
FS=5 AMPS AC, scale 0-100-200 AC AMPS; 2.5" square GE-Yokogawa (d), \$8.95

FS=200 UA DC, 0-50 NULL, 4.5x4.2 Simpson-like (g); \$10.
TEKTRONIX replacement meter for TEK 130 LC: scale 0-3-10-30-100-300 uuf/uH, FS=200 UA with 1% tracking, 4.5x4 (h). #149-0022, \$15.00
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DAYTONA ATD METER FS=200 UA DC, special red face scale for metal detector; 3x2.6, Korea, \$2.95

VU METER, 1-3/4" square white face; directly usable as Line Level meter in R-390/A receivers. A&M Model 133, NEW, \$19.95

SIGNAL STRENGTH METER, 0-10 scale 1-3/4" square as used on CEI-WJ 700/900-Series receivers; FS=50 UA DC. #1632-1, NEW, \$12.
FS=50-0-50 UA DC, Red-Green-Red, 1.8" sq. \$7



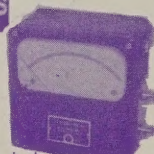
GALVANOMETERS

Used in precision instruments to indicate slight variations in electrical

current of circuits under test. NEW:
LEEDS & NORTROP #18876, 10-0-10 scale, 1 mm increments; sensitivity 0.1 ua/mm. CDRX 10K ohms; 500 ohms system resistance. Period 4 seconds. Balance control has "lock". Behind panel size 4"Dx1" dia; front 3"H. \$29.95
GALVANOMETER with 15-0-15 scale, 1 mm increments; 1.0 ua/mm sensitivity. Meter movement coupled to mirror for photo-optic indication. Balance control does not have "lock". Behind panel size 3D"x2" dia; front 2.5" dia, 2 lbs sh. #GALV-726667, \$22.95

PORTABLE AMMETERS

BITRONICS STEEL-SIX 0-10 AC AMMETER for direct measurement on 4.5" wide mirrored scale terminals on side. Steel enclosure; 6x6.5x3.5, 5 lbs. #BIT-10AAC, NEW \$37.50
+ + + + +
#BIT-21025-AD DC AMMETER, like above, except scales 0-2.5-10-25 DC AMPS. NEW, \$34.50



1/2 MI WD-1A/TT

MX-306A FIELD TELEPHONE WIRE REEL, canvased-covered reel of 1/2 mile (2600 ft) WD-1A/TT twin lead black vinyl-covered steel wire. Intended for use with EE-8, TA-43, TA-312 and similar field phones. 10" dia X 5"H, 22 lbs. UNUSED, \$65.
"USED" MX-306A, may have splices, \$50.00

MULTI-TURN POTS

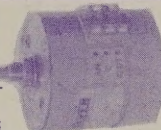


BECKMAN HELIPOTS, 10-turn precision potentiometers with 1/4" dia shafts; picture (a). NEW:
#A-R100-L-25, 100 ohm 3%; 2.8"Hx1.8"dia, \$8.95
#731A-R50K-L-5, 3-turn 50K ohm 5%; 2"Hx1.8" \$7.50
SPECTROL #860-9921 POT (a), 20K ohms 10-turn 3%, +/-0.1% linearity; 2.8"Hx1.8" dia, \$9.

BOURNS CLOCK FACE KNOBPOT (b), 1000 ohms 2.5 watt; accuracy +/-1% VR. 10-turn dial; clock hands count turns. Solder terminals; o/a 1.3" dia x 2"H. #3460S-31-102, NEW, \$10.95
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CLAROSTAT 2 watt 50K ohm POT, 1.5"Lx1/4" dia shaft; #RV4NAYSJ503A, NEW, 2/\$1.00
PEC 5K ohm VOLUME CONTROL w/On-Off; 1/4"Lx 1/4" dia shaft. #SMC-3448332, NEW, 2/\$1.50

'T' ATTENUATOR

DAVEN "T" ATTENUATOR, 15/15 ohm; 30 DB total in 3 DB continuous increments (no detents). Shaft 3/8"Lx1/4" dia; o/a 3"Hx2.5" dia. #4020-T1767, NEW, \$9.95



300 W RHEOSTAT



LARGE RHEOSTATS, Ohmite or =
#RHEO-150W-2, 25, 350, or 750 ohm, \$5.00 each.

#RHEO-225W 3 ohms, used, \$6.
#RHEO-300W- 3, 6, or 350 ohms, 4# sh, \$8 ea.
#RHEO-500W-3 ohms, 6 lbs sh., \$12.50 ea

RESISTORS

QUALITY U.S.-mfg
LOAD RESISTORS, new:
WATT OHMS MFG SIZE PRICE
43 1600 Memcor 3"Lx0.75" dia \$.75
43 2000 Tru-Ohm 3"Lx0.75"dia \$.75
55 4 Dale 5% flat 3.5x1.5 \$1.50
68 3000 Dale flat 6"Lx1.5"W \$1.00
91 1.1 Dale flat 7.3"Lx1.5" \$1.00
100 75 Ohmite 6.5"Lx0.8" dia \$1.25
100 100 Ohmite 6.5"Lx0.8"dia \$1.25
100 200 Ohmite 6.5"Lx0.8"dia \$1.25
113 36000 Dale 6"Lx1.1" dia \$1.25
175 2 8.5"Lx1.3" dia \$2.00
175 10000 Ohmite 8.3"Lx1" dia \$2.00
225 1 10.5"Lx1.3" dia \$3.00
240 0.82 12.5"Lx1.1" dia \$3.00

NON-INDUCTIVE POWER RESISTORS, Carborundum:
150 W 1 ohm 8x1, \$4. 275 W 144 ohm 12x1, \$6.

COMPUTER GRADE

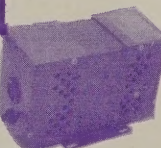


COMPUTER GRADE CAPACITORS
good values; 1 lb sh each.
MFD VDC SIZE PRICE
14000 75 6x3 \$4.25
6700 100 4.5x3 \$4.00
3000 300 6x2.5 \$7.50
1600 450 6x3 \$7.00

* Buy 5 or MORE one type, take 20% OFF ! *

CONSTANT VOLTAGE

SOLA CONSTANT VOLTAGE TRANSFORMER, harmonic neutralized. Input 95-130 VAC; output 118 VAC 60 Hz 120 VA. Includes 2-conductor line cord and outlet receptacle. 5x7.5x3.3 10 lbs sh. #20-13-112-2, unused, \$45.00



SOLA #24559, similar to above except 95-130/190-260 V in; hard-wire hook-up. Used, \$40.

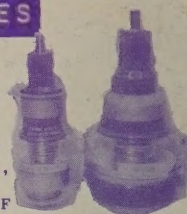
FOOT SWITCH



HERCULES FOOT SWITCH, rugged cast construction designed for heavy-duty industrial shop use. Rated 15 amps 125-250 VAC; 1/2 HP 125 V or 1 HP 250 V, OSHA orange color. Pedal 4"W; o/a 3"Hx8"L; 9 lbs sh. #HFSW-53-SYN, NW, \$29.95

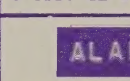
VACUUM VARIABLES

JENNINGS VACUUM VARIABLE CAPACITORS, unused:
#UCS-375-15, 10-375 PF, 15 KV peak; w/mount flange, 9"Lx3" dia, 4 lbs. \$195.
#UCSXF-2000-10, 50-2000 PF 10 KV peak; 10"Lx5.1" dia, 7 lbs sh., \$350.00
#CVA-7-35, ceramic 3.5-7 PF 35 KV peak; 4.3"Lx3" dia, 4 lbs. \$75. \$55.



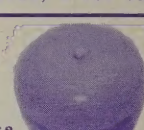
VARIABLE XFMRs

GENERAL ELECTRIC VARIABLE TRANSFORMER, input 120 VAC 60 Hz. Isolated output 0-60 VAC. Maximum current load: 5 amps. Two units wired in series will produce 120 VAC output. Coil not enclosed; dial plate & knob not included. 4.4"di X 4"H 6 lbs. GE #9T92A1515, NEW \$19.95; 2 for \$35.



ALARM BELL

ADAPTABEL INDUSTRIAL ALARM BELL, 5.8" dia bell operates from 6 VDC 250 MA for non-fire use. Heavy metal cast construction w/ mount hardware; 3#. Edwards #435-6C1, NEW, \$9.95



TEST SOCKETS



POMONA TEST SOCKET ADAPTERS, plugs into tube socket and allows tests of a vacuum tube's electrical characteristics. Socket pins have terminal tab for wire or test prod. NEW: #TVS-8 octal, \$2. #TVS-9, 9-pin mini, \$2.25

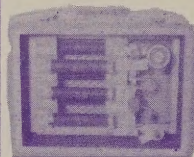
BC-610 TUNING UNITS

TU-51 PLUG-IN TUNING UNIT for BC-610 xmmitter over 5.0-6.35 MHz range; provides tuning for RF oscillator, buffer-doubler and intermediate power amp. With variable capacitors 8-99 pf, 9-143 pf (600 V) & 7-100 pf (800 pf), coils, switches, etc. 2.9x9x5, 4#. UNUSED, \$19.95



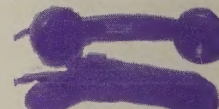
ANT-SIMULATOR

ANTENNA SIMULATOR by Boeing, a portable RF load box using two 77 and four 27 ohm 50 watt non-inductive resistors, one CRL 859 60 PF 20 KV doorknob capacitor, five CM-55 mica cap, and silver-plated coils. Has 5" dia 115 VAC 60 Hz cooling fan; transit case has removable covers. 11.5x16x13, 33 lbs sh. #ANT-SIM, used, \$40.



HANDSETS

H-90/U HANDSET, similar to TS-9 handset; has 256 ohm receive and T-1 transmit elements, butterfly "talk" switch, coil cord & U-77 plug. Can be modified to replace H-33/PT, if Tx contacts on plug are changed; 3 lbs sh. Used, \$12.00 \$10.



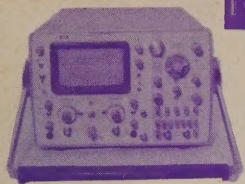
H-250 HANDSET for use with ground radio sets such as PRC-25/77, VRC-12 etc. Has push-to-talk button and heavier coil cord with U-229 plug; 3 lbs sh. Unused, \$22.50

600 OHM HEADSET

ROANWELL AVIATION-QUALITY 600 ohm HEADSET with 4.5"Hx3.5"D vinyl-covered cushions, 2.5"W adjustable headband, and 5 ft cord with PL-55 type plug to fit most receiver phone jacks. #905-7561, UNUSED, \$19.95

COLLINS HF-8020 POWER AMP, 1.6-30 MHz 1 KW output; requires HF-8030 power supply (not available), 67 lbs. GOV'T-RECOND., \$2250.00



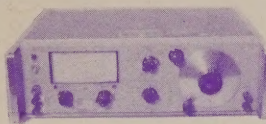


150 MHZ SCOPE

HEWLETT-PACKARD 1710A PORTABLE SCOPE, DC to 150 MHz response with dual channels, large 6x10 CM display, and selectable input impedance 50 ohms or 1 megohm. Modes Channel A or B, A+B, A & B alternating, A & B chop. Deflection: 5 mv-5 V/div in 10 calibrated steps, 1-2-5 sequence plus vernier to 12.5 V. Sweep: 20 ns-0.2 s/div in 22 steps, vernier to 0.5 sec and X10 magnifier. Trigger normal, auto or single. Delay sweep: 20 ns-0.1 s/div in 21 steps, vernier to 0.25 sec; delay time varies 0.02 us-2 sec. Calibrator 1 KHz squarewave, 1 V p-p. Requires 115/230 VAC 50-440 Hz, 38 lbs sh. Used-repairable, \$499. Checked, \$595.00. MANUAL for HP-1710A, partial repro, \$22.00

DISTORTION ANALYZER

HEWLETT-PACKARD 333A DISTORTION ANALYZER, solid-state unit measures total distortion to 0.1% of full scale over 5 Hz to 600 KHz and harmonics indicated to 3 MHz. Distortion levels of 0.1% to 100% measured full scale in 7 ranges and noise levels as low as 50 mv. Fundamental rejection >80 DB. Automatic fundamental nulling feature speeds up measurement process by completing rejection of fundamental when manually tuned within 10% of Set Level reference. Wide voltmeter indicates 300 uv to 300 V rms full scale in 13 ranges, 10 DB/range. Requires 115/230 VAC 60 Hz; 16.8x5x13.3, 22 lbs sh. Used-repairable, \$345.00; CHECKED, \$450. MANUAL, partial repro, \$15.00



GRR-17 SSB RECEIVER

R-1490/GRR-17 SSB HF RECEIVER, solid-state portable unit covers 2.0-30 MHz LSB-USB-AM-CW-FSK in 100 Hz steps using five digital switches plus vernier. Also BFO, notch filter BROAD-SHARP, and built-in speaker. Requires 115 VAC 50-400 Hz or 24 VDC. R-1490 is modular design and difficult to repair. Sold "AS-IS" WITH modules, LESS drive belt having NO OUTPUT -not necessarily repairable. 11.2x19.2x13.5, 60 lbs. Used-"AS-IS", \$350. MANUAL for R-1490, partial repro, \$40.00. D43611/GRR-17 RADIO CASE, \$35 w/set purchase



H-P 3550B CARRIER TEST

HEWLETT-PACKARD 3550B CARRIER TEST SET for field testing transmission line and system characteristics. Includes solid-state 204C Oscillator, 403B Voltmeter, and 353A Patch Panel described below in transit case. Beige-color 204C, 403B, 353A may have "yellowed" appearance. 8.4x19.3x13.3, 36#. USED: Repairable, \$275. \$195. CHECKED, \$305. \$295.



HP-3550A CARRIER TEST, earlier grey-version w/204-B, 403B, & 353A. Used-repairable, \$150.

HP-204C AUDIO OSCILLATOR, covers 5 Hz to 1.2 MHz in six ranges. Distortion 0.1% over 30 Hz - 100 KHz; <1% overall. Output >2.5 V rms into 600 ohms; >5 V open circuit. Output control >40 DB continuously variable. Requires 115/230 VAC 48-400 Hz; provision for 6 V battery power. 5.1x6.3x8, 9 lbs sh. UNUSED, \$350.00. Used-repairable, \$175 \$99. Checked, \$250 \$175. HP-204B OSCILLATOR, earlier version of "C"-model but 5 Hz-560 KHz. Used-repairable, \$75. MANUAL f/HP204B or -C, partial repro, \$10 ea

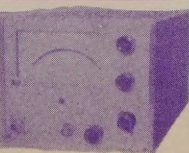
HP-403B AC VOLTMETER (Option 001), solid-state unit measures 0.001 to 300 V rms in 12 calibrated steps, 1-3-10 sequence; -60 to +50 DB in 10 DB steps. Response 5 Hz-2 MHz. Option 001 provides designed accuracy of +/-0.2 DB of full scale 10 Hz-1 MHz; < +/- 0.8 DB overall. Input impedance 2 megohms shunted by < 60 pf to 0.03 V; < 30 pf to 300 V. Operates from 115/230 VAC with recharge circuit for four 6 V 225 ma batteries. 5.1x6.3x8, 9 lbs sh. Used-repairable, \$75.00; Checked, \$115.00. MANUAL for HP403B, partial repro, \$10.00

HP-353A TELEPHONE PATCH PANEL, 50 Hz-560 KHz freq-range; impedance 135, 600, & 900 ohms CT. Attenuator 110 DB in 10 and 1 DB steps. With two 3-terminal binding posts for external circuit and two BNC connections. 5.1x6.3x8, 9 lbs sh. Used, \$55.00

HO2-353A PATCH PANEL, similar to above except attenuator 23 DB (+/- 0.5 DB) 1-step slide switch & has Hold Circuit for SEND terminals. Response 300 Hz-3 KHz, 240 ohms DC-res. Max voltage: 150 VDC 100 ma. Jacks for W.E. 309 and 310 plugs. Used, \$65.00. HO3-353A, like HO2 but with RECEIVE & SEND term.; jacks for WE 309-310-241 plugs. \$75.

PEAK POWER CALIBRATOR

HEWLETT-PACKARD 8900B PEAK POWER CALIBRATOR, measures peak power of RF pulses from 50 to 2000 MHz. RF Power range 10-200 MW read directly on meter. Pulse width >0.25 us-sec; repetition rate 1.5 MHz min. RF VSWR <1.25. Requires 105-125/210-250 VAC 50-60 Hz; 7.8x6.1x11, 14#. Used-repairable, \$85.



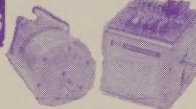
H-P 1801A DUAL-TRACE

HEWLETT-PACKARD 1801A DUAL CHANNEL PLUG-IN for 180-Series military USM-281A oscilloscopes; response DC to 50 MHz. Deflection 5 mV/div to 20 /di in 12 steps. Trigger A, B, A+B, chopped & alternate; 6#. Gov't-recond w/manual, \$85. ***** HP-10004D 10:1 PROBE for HP and similar oscilloscopes with response upto 50 MHz. Input 10 megohms shunted by 10 pf. Unused, \$25.00



HP-OSCILLATORS

HEWLETT-PACKARD OSCILLATORS, replacement modules; SMA conn. NEW: #86222-60050, 3.8 GHz; p/o HP-86222 plug-in for HP-8620 Sweep Oscillator, \$85.00. #5086-7267, 1.95 - 6.25 GHz (p/o HP-8671 or -8672A?); requires -10 and +20 VDC. \$125.00



SOLID-STATE OSCILLATOR

AN/URM-127 SOLID-STATE AUDIO OSCILLATOR, 20 Hz to 200 KHz in four bands. Metered output 0-10 Vrms into 500 or 1000 ohms in 7 decade ranges. Design accuracy +/-2%; stability +/-0.5%. Requires 115 VAC 50-70/380-420 Hz. 7.5x13x4.5, 15 lbs sh. Used-repairable, \$65. Checked, \$115.00; MANUAL partial repro, \$10.



4400-5000 MHZ COUPLER

CU-1890/GRC DIRECTIONAL COUPLER allows injection of test signal into 4400-5000 MHz receiving system. Attenuator Adjust 20 -40 DB & type N RF input conn. Waveguide opening 0.9"H x 1.9"W with 3.6" dia flange. 5x10x3.6, 4 lbs sh. Unused, \$29.95



VLF RX / COMPARATOR

FLUKE 207-1 VLF RECEIVER/COMPARATOR, compares local frequency standards to received VLF and LF standard broadcast; covers 8.0 to 31.9 KHz in 100 Hz steps plus single 60 KHz channel. Measures phase-shift of 1.1 KHz standard freq to 1.1 KHz signal derived from received RF. Built-in 2.5" chart recorder documents event over time. METER FUNCTION select: RF Sig-Servo PD-Sig PD-Synth-+/-Pwr; ACCUMULATIVE ERROR 5-digit mechanical counter. Also TRACKING RATE select: 1x10 /3x10 /1x10 /3x10 . Other controls SERVO PHASE Advance-Retard, RF ATTENUATOR 0-60 DB in 10 DB steps. Includes broadband RF filter PC board and provision for 4 optional filters. Requires 95-125/190-250 VAC 48-400 Hz or +/-12 VDC. 7x19x18, 40 lbs sh. Used-repairable w/manual copy, \$595.



PRC-10 TRANSCEIVER



RT-176/PRC-10 TRANSCEIVER, part of portable backpack set (accessories listed below) covering 38-54.9 MHz FM continuously tunable with 0.9 watt transmit output. Controls for Volume, Tune, Squelch, Pointer Adjust, and Dial Lock; tubes 9/5678, 2/5672, 3/5676, 1A4, 5A6. Requires BA-279 battery which supplied +1.5/67/135 & -6 VDC. 3x9.5x9, 10 lbs sh. Used, \$45. MANUAL, partial-repro \$10. RT-175/PRC-9, 27.9-38 MHz, used, \$38.00

***** CY-744/5007 BATTERY BOX f/above, \$6 w/set. BA-279 BATTERY, unused-tested, \$7.95; 12/\$72 H-33/PT HANDSET, used, \$17.50. AT-272/PRC RIBBON ANTENNA & flex base, \$8.00. AT-271/PRC ANTENNA, 7-section 8.5', used \$10. AB-129/PRC RUBBER P'SE for AT-271, used, \$3. CW-216 ACCESSORY BAG f/PRC-8-9-10, used, \$6.

AM-598 AMPLIFIER POWER SUPPLY, a 24 VDC supply & audio amp for PRC-8-9-10 transceivers which plug into top. Audio cord connects RT-audio. Tubes OC3, 26Z5 2/12AT7, 2/26E6. 11.3x11.5x10.3 38 lbs. Used, \$50. MANUAL, \$5. CX-2031 DC cable, 8 ft, used \$8

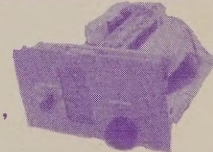


R-390A MODULES



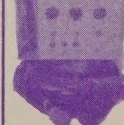
VARIABLE FREQUENCY OSCILLATOR from R-390A HF receiver with 5749 tube; various mfg (no choice). 4x3x7.5, 4 lbs sh. #VFO/R390A-O/H, GOV'T-RECONDITIONED, \$45.00. IF DECK from R-390A with BFO, four Collins 455 KC mechanical filters 2-4-8-16 KHz, and tubes except no RT510 ballast; 4 lbs. USED: #IF/390A, "AS-IS" but "good" filters, \$100. AUDIO AMPLIFIER for R-390A w/ tubes, capacitors; 7#. #AF/R390A-OH, GOV'T-RECOND, \$35.00

EXCITER DECK

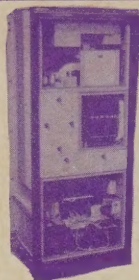


EXCITER DECK from T-368 transmitter; includes tuneable VFO, multiplier, and Band Selector for 1.5-3, 3-, -12, and 12-20 MHz. Uses type 6000 tube as power amp to excite T-368's 4-400A tube. With proper voltages, exciter functions as 5 watt CW transmitter. Requires -55, +150, +275 VDC, and 6.3 VAC plus +370 VDC, 2.5 VAC for 6000 tube. With tubes 3/6AH6, 2/5749, 6000 and schematic. 5.8x10x10.8, 15 lbs sh. USED: #EXC/T368, \$85.00; WITHOUT 6000 tube, \$45.

CU-937 TESTER



TS-3797/UR TEST SET for CU-937 antenna coupler in conjunction with AM-3007 HF power amp. Tests circuits tune motor, load motor, bypass normal and network Select motor. Indicator lights show results; controls NETWORK SELECT 1 thru 11, TUBE/LOAD SELECT Hi-Lo, EXT-INT +28 V. Includes cables to connect TS to CU-937 and CU to AM-3007; Requires 115 VAC 60 Hz. 9.3x9.8x8.8, 15#. UNUSED w/test info, \$49.50. CABLES ONLY TS-CU737, \$15. CU to AM3007, \$20



COLLINS 208U-3A

COLLINS 208U-3A POWER AMPLIFIER automatically tunable linear PA operates over 2.0-29.9999 MHz SSB-AM-CW; output 2.5 KW PEP using 4CX5000A tube driven by two 4CX350A tubes. Requires RF input from 0.025 to 0.1 watts for rated output; upto 2 W input acceptable. Tune time 6 sec nominal, 10 sec max. Other features: Internal Gain Control, Automatic Load Control, & Transmitter Gain Control. Has Collins URG-II compatible modules 333H-2 Electronic Control Amp, 309F-1 Digital to Analog Converter, 915V-2 Amp Control, 652J-13 Power Supply, 599Z-1 Test Panel, and 915X-1 Control Monitor. Input imped: 50 ohms, max VSWR 1.3:1. Output imped: 50 ohms, max VSWR 3:1. Power input: 200-250 VAC line-to-line, 3-line & ground, 3-phase 30 amps 47-63 Hz; 1200 W Standby, 9100 W single tone CW @ 2.5 KW. Includes manual copies for all components except 915X-1 & 599Z-1. 72.5x32.6x31; 1020 lbs sh. Used, "not-tested" less 4CX5000A, \$4200.

URG-2 RX-EX

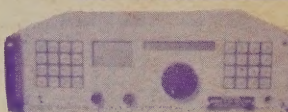
GRR-18/GRT-17 RECEIVER-EXCITER GROUP, part of Collins URG-II family and used in conjunction with 208U-3A and similar Collins HF power amps. Modular designed system operates over 2.0 to 29.9999 MHz in 100 Hz steps 280000 channels; 250 KHz IF. GRR-18 and GRT-17 each have modules 599H, 887B-1 Synthesizer, 652J-4 Power Supply, and 499R-4 mount racks. GRR-18 also has 888B-2 Amp-Converter, 889A-2 Audio Detector, and 889B-1 Audio Converter. GRT-17 has 888B-1 Amp-Converter and 889A-7 Amp-Converter. System controlled by C-8364/TSC rackmount monitor with frequency select and mode functions for two receivers and exciters; built-in speaker and AC supply. With connectors and manual copies for all except C-8364. System requires 115 VAC 50-60 or 400 Hz. Each rack 10.4x18.8x22.6; sh wt: 87 lbs (GRR-18), 65 lbs (GRT-17). C-8364: 7x19 x14.5, 45 lbs sh. Used-not tested, \$900.00

RT-662 & AM-3349/GRC-106

AN/GRC-106 HF RADIO SET, covers 2-29.999 MHz USB-AM-CW-FSK @ 200 watts AM, 400 W PEP using separate RT-662 transceiver and AM-3349 amplifier units. Usable with 15 ft whip or 50 ohm doublet. Mechanical 5-decade frequency select down to 1 KHz steps on RT plus vernier; also controls for Service Selector, PA Load, Squelch, Noise Blanker, and other audio functions. AM-3349 has ANT TUNE and LOAD, 50 Ohm Line, Test Meter function select, and system ON-OFF. Requires 28 VDC 250 W (Standby), 1000 W (Transmit). Set includes MT-3140 mount & sideplates, CX-10099 interconnect cable, CX-10171 antenna cable, and power-in connector. NOTE: Paint colors of our RT-662's & AM-3349's do not match each other! Set o/a 17x18x13, 160 lbs sh. Used-complete /not tested, \$1500.00. MANUAL f/above, maintenance part-repro, \$35. H-33/PT HANDSET, unused, \$25.00 LS-166 SPEAKER, used, \$15.00 AB-652/GR ANTENNA MAST BASE, 6#; used, \$6.00 ++++++ AN/GRC-142 RADIO TELETYPEWRITER SET in S-318 SHELTER fits on 3/4-ton pick-up truck. Includes: GOV'T-RECONDITIONED RT-834 & AM-3349/GRC-106A (2 to 29.9999 MHz in 100 Hz steps), MD-522 Frequency Shift Converter, USED PP-4763 28 VDC 50 amp Power Supply, teletypewriter, DC to AC inverter for TTY, ME-165 SWR Power Meter, interconnect wiring, and systems operator's manual. Most shelter accessory items have been removed. 70.4x75.4x72, 1700#. \$2995.00



RACAL HF RECEIVER



RACAL RA6790/GM (R-2174P/URR) HF RECEIVER, micro-processor-directed and operates 0.5 to 29.999999

MHz AM-FM-CW-LSB-USB in 1 Hz increments. LCD readouts shows 8-digit frequency and 3-digit BFO relative to 455 KHz IF. Frequency and function selections including "self-test" controlled by two membrane keyboards. Has space for seven crystal filters allowing for variety of performance configurations. Our units supplied only with three general purpose purpose filters 0.4, 1.2 and 6.8 KHz. 50 ohm antenna input using N-connection; 600 ohm audio. Requires 100-120/200-240 V 43-420 Hz. 5.3x19x20, 35#. These complex receivers REQUIRE REPAIR and/or replacement of some parts. USED-COMLETE-AS-IS w/manual, \$850.00

PRC-68 NICAD PACK

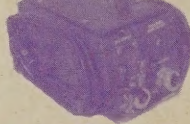
BB-715 NICKEL-CADMIUM BATTERY

in aluminum case designed to fasten to PRC-68 handheld transceiver. Output: 15.5 VDC no load, 13.4 V working, 12 V discharge. Rechargeable; 1.3x3.6x5.3, 3 lbs. NEW, \$24.00

***** AS-2447/PRC-75 RIBBON ANTENNA, snap fastens to RT-976/PRC-75 225-400 MHz handheld transceiver; 14.6"L, snap fastens. NEW, \$10.00



FIELD CHARGER



BATTERY CHARGER TRAINER, small electronic unit operates from either 115/230 VAC or 28 VDC and charges at 400 MA constant current rate. Includes AC & DC input cables, output cable, and padded canvas carrying case. Charger 5.5x6x9.5, 3 lbs net; 8 lbs sh. #BC-M820/841, unused. \$34.95

MOTOROLA CHARGER

MOTOROLA BATTERY CHARGER for

Motorola handheld transceivers which fit into charging trough. Output, 11 VDC 100 ma. Has red Charging light & 3-conductor line cord. Requires 115 VAC 60 Hz; 4.8x5x5.5, 4#. #MBC-6804C. UNUSED \$27.95



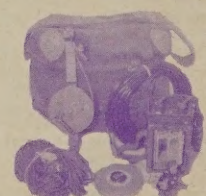
STARSET HEADSET



PLANTRONICS STARSET® OPERATOR'S HEADSET, ultra-light with voice tube clips to headband or to wearer's glass frames. Includes six sizes of earphone tips which fit into ear. Coil cord has push-to-talk switch & double plug. Black color; w/carrying pouch. 2 lbs. #MS50T62-30-2, NEW \$34.95

ACS MICROSET® OPERATOR'S HEADSET, similar to above, except fits over the ear (no headband) beige color. #ACS-SM-HS NEW, \$39.50 \$34.50

GRA-4 LONG-WIRE KIT



AS-244/GRA-4 LONG-WIRE ANTENNA KIT originally used 1.5-18 MHz 100 watt half-wave antenna system. Consists of three RL-122 long-wire (each 150 ft copper-tinned braid on reels), six CG-357 coax lengths (each 50 ft RG-59 w/ N connectors), one IL-4 doublet insulator with

N-connection, one 100 ft tape measure, two MX-516 halyard (140 ft 3/8" thick nylon rope w/insulator & pulley), two 10 ft W-128 lead-in cable, one TN-174 tuner with 12-244 pf 2 KV air capacitor, and BG-102 canvas bag. 34 lbs sh. UNUSED, \$99.50; MANUAL, \$8.50

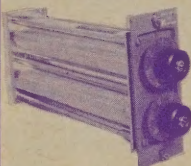
1 TO 600 KHZ SSB

R-1401A VLF RECEIVER with digital readout; CEI



357 solid-state set covers 1-600 KHz AM-CW-SSB-MCW-FSK with selectable IF Bandwidth 150 Hz-1 KHz-3 KHz-6 KHz and Input Attenuator 0-20-40-60 DB. Digital AFC function locks local oscillator to counter and provides equivalent of 60000 crystal-controlled frequencies in 10 Hz steps when used in DECIMAL SHIFT mode. Controls for DAFC-TUNE for Normal Display or Decimal Shift plus 0 thru 9 DAFC Last Digit select. Also BFO select OFF-ZERO-VAR-5.5 KHz -USB-LSB and separate vernier, Audio Gain Audio BW NAR-NORM toggle, Noise Canceller Threshold, AGC/IF Gain, Fine and Main TUNE. Has 600 ohm phone jack, 0-10 Signal Strength Meter, 50 or 1000 ohm input impedance & IF, SM, and LO BNC outputs. Requires 115/230 VAC 50-400 Hz; 3.5x19x20, 34 lbs sh. With manual copy! USED-operational-not to specs, \$495.00

142 - 163 MHZ FILTER



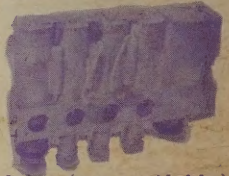
F-194/U BANDPASS FILTER for 142-163 MHz range which includes 2 METER band. Gold-plated twin cavities each have Tune knob & dial and N-connection on rear. 7x 2.5x9.5, 8 lbs. Unused \$40.

F-197/U, 205-225 MHz, \$30. F-193/U, 121-142 MHz (convert to 2 M), \$24.

900-1100 MHZ CAVITY

TRANSMITTER TRIPLER / PRESELECTION CAVITY MOD-

ULE from TACAN system in 900-1100 MHz range. Consists of preselector and four silver-plated cavities each w/ 2C39A tube. Module and cavities originally gang-tuned using ball-chain drive (not available) 10x7.5x2, 7 lbs sh. #4-CAV-93, used, \$49.50



H-P ATTENUATOR



HEWLETT-PACKARD 350D ATTENUATOR, 0-110 DB using decades 0-100 DB in 10 DB steps and 0-10 DB, 1 DB steps; DC to 1 MHz response. 600 ohms unbalanced; 5 W max. 6.3x5.1x8, 6 lbs. Used, \$45.

MAST KIT

AB-155 MAST KIT, includes eight self-stacking 66"Lx1.6" dia aluminum MS-44 mast sections to make 40' mast. Also 4 ea guy ropes MX-381 (40'), MX-382 (31'), MX-383 (50'), one MX-516 rope, 5 each MX-378 guy rings, AB-154 swivel base, six GP-101 15" stakes, and HM-1 hammer; 70#. UNUSED, \$125. \$99.50

+++++ TRIPAD ADAPTER, uses three MS-44 as legs to "free" stand mast to 24' without guy support; 4 lbs sh. #TRI-AB155, UNUSED, \$15 w/AB-155 purchase



AT-784 DP LOOP SET



AT-784/PRC DIRECTION FINDER LOOP ANTENNA SET for use with PRC-25/77, VRC-12 and similar radio equipment. Covers 30-76 MHz in five bands. Controls FINE TUNE 0-10 MHz in 1 MHz steps and ATTENUATOR 0-40 DB in 10 db steps. Includes AT-1082 loop antenna with whip, CG-2840 & -3344 cable assemblies in CW-445 canvas bag and manual. Collapsed size: 8x6 x3.5, 5 lbs. USED-EXCELLENT, \$34.50

***** AM-7235/VRC 20-75 MHz POWER AMP, 100 /400 W output; 28 VDC input. Solid-state, LCD TUNE display; no info. 11x20x22, 80#. USED, \$500.